

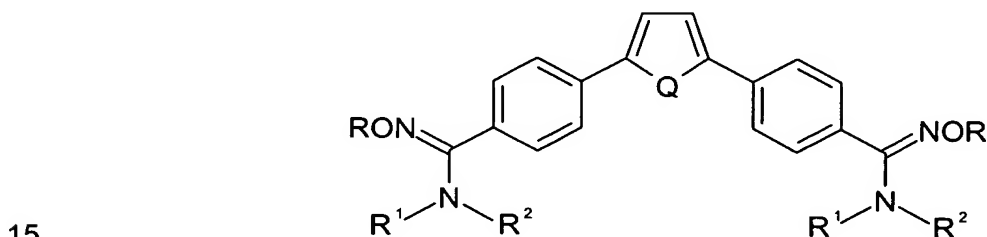
CLAIMS

What is claimed is:

1. A method of preparing a bis-aryl diamidoxime compound, the method comprising:

- 5 (a) contacting an amidoxime aryl halide with a 2,5-bis tri-alkylstannane under an anhydrous gas to form a first reaction mixture;
- (b) adding an anhydrous aprotic solvent and a palladium catalyst to the first reaction mixture to form a second reaction mixture; and
- 10 (c) refluxing the second reaction mixture for a period of time, whereby a bis-aryl diamidoxime compound is prepared.

2. The method of claim 1, wherein the bis-aryl diamidoxime compound comprises the structure:



wherein R, R¹, and R² are the same or different and are selected from the group consisting of H, aryl, linear alkyl, cyclic alkyl, and branched alkyl; Q is selected from the group consisting of O, S, NH and CH₂; and pharmaceutically acceptable salts thereof.

20 3. The method of claim 1, wherein the amidoxime aryl halide is selected from the group consisting of *p*-bromobenzamidoxime, *O*-methyl-*p*-bromobenzamidoxime and *O*-*n*-propyl-*p*-bromobenzamidoxime.

25 4. The method of claim 1, wherein the 2,5-bis tri-alkylstannane comprises a moiety selected from the group consisting of furan, thiophene, pyrrole, and cyclopentadiene.

5. The method of claim 1, wherein the anhydrous gas is selected from the group consisting of nitrogen and argon.

5 6. The method of claim 1, wherein the anhydrous aprotic solvent is selected from the group consisting of dioxane and dimethylformamide.

7. The method of claim 1, wherein the palladium catalyst is tetrakis(triphenylphosphene)palladium(0).

10 8. The method of claim 1, wherein the refluxing is for a period of about 16 hours.

9. The method of claim 1, further comprising:
15 (a) following the refluxing, removing the aprotic solvent to form a residue;
(b) diluting the residue into a nonpolar solvent to form a solvated residue;
(c) filtering the solvated residue to form a filtered residue;
(d) washing the filtered residue with a wash solvent to form a
20 washed residue; and
(e) drying the residue.

10. The method of claim 9, wherein the nonpolar solvent is selected from the group consisting of ethers, alkanes and methylene chloride.

25 11. The method of claim 9, wherein the wash solvent is selected from the group consisting of an ether, an alkane, methylene chloride, ethyl acetate, ethanol and combinations thereof.